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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/481,903	01/12/2000	BENSON CHAN	EN999025	6309

7590

11/29/2002

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EXAMINER

KANG, JULIANA K

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 11/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/481,903

Applicant(s)

CHAN ET AL.

Examiner

Juliana K. Kang

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on July 12 and September 3, 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 27-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-22 is/are allowed.
- 6) ☒ Claim(s) 1,3,23,24 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

1. This is a response to the amendment and affidavit filed on July 12, 2002 and September 3, 2002, which have been carefully studied by the Examiner. The affidavit has been considered and overcame the Gibony et al reference. The affidavit and the amendments made to some claims required further consideration and upon further search, the consequent discovery of a previously uncited prior art document necessitated a new rejection to some of the pending claims. This action is **not** made final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 3, 23, 24 and 27-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Maehara et al (U.S. Patent 6,164,838).

Regarding claim 1, Maehara et al disclose a removable fiber optic module connected to a computer or the like (a host card, see column lines 66-67 and column 5 line 1) comprising; a laminated (30) for supporting optoelectronic components (33, 40, 50); an amplifier die (35) operatively connected to an supported by the laminate for amplifying electrical signals (see column 10 line 8); a flexible circuit (39) electrically connected to an supported by said laminate (30) for receiving said amplified electrical signals form the amplifier die (see Fig. 16 and column 20 lines 10-50); and an optoelectronic die (50) electrically connected to said flexible circuit for receiving said amplified electrical signals generated by said amplifier die and for generating optical signals responsive thereto (see Figs. 1 and 16).

Regarding claim 3, Maehara et al disclose an optical subassembly having means for optically aligning (20) with said optoelectronic die for receiving and processing said optical signals therefrom, said optical subassembly comprising an optical coupler and a removable optical connector having an optical cable (see column 2 lines 65-67).

Regarding claim 23, Maehara et al disclose a removable fiber optic transceiver module comprising; an optoelectronic subassembly comprising a transmitting optoelectronic device (50) secure to a carrier (30), an electrical signal transfer device (39), and an optical coupler signal transfer device (40, 40) both being secured to a retainer (10, 20) and to said carrier (30); and an electronic subassembly comprising an overmold frame (200, 210) secure to a laminate and to the retainer.

Regarding claim 24, Maehara et al disclose the electrical signal transfer device (39) electronically couples an electronic signal from said electronic sub-assembly to said transmitting optoelectronic device (52), said transmitting optoelectronic device converts said electronic signal to an optical signal (see column 9 lines 61-67), said optical signal transfer device optically couples said optical signal to said parallel fiber optic connector, and said retainer removably retains said parallel fiber optic connector (see column 2 lines 65-67).

Regarding claim 27, Maehara et al disclose a method for coupling an optical fiber cable to at least one translating die comprising; applying an electrical signal from an amplifier die (35) to a flexible circuit (39) disposed on a laminate (30) to which a host card (see column lines 66-67 and column 5 line 1) can be electrically connected (220), converting said electrical signal to an optical signal (see column 9 lines 61-67) and applying said optical signal to an optical coupler for transmitting said optical signal to an optical connector attached to said at least one fiber optic cable (see column 10 lines 2-9).

Regarding claims 28 and 29, Maehara et al disclose a plurality of heat sink pathways for performing the heat removing step (see column 16 lines 13-29). Maehara et al's convex portion (201a), upper cover (200) and the lower cover (210) are used to dissipate heat created from the amplifier (35) and LD driver.

Regarding claim 30, Maehara et al disclose a retainer (10, 20 see Fig. 31) operatively connected the optical coupler and removably connected to said optical connector (see column 2 lines 65-67).

Allowable Subject Matter

4. Claims 4-22, 31 and 32 are allowed.

Regarding claims 4, 7, 9, and 31, the closest prior art of record, Maehara et al (U.S. Patent 6,164,838) do not teach an optoelectronic subassembly with the specific elements and the specific combinations including a heat sink carrier operatively connected to the flexible circuit and attached to the optoelectronic die.

Regarding claim 16, there is no prior art of record that teaches or reasonably suggests the claimed structure exactly including a vertically oriented translating dies and a flexible circuit disposed between the horizontally oriented laminate and an optical fiber cable as set forth in claim 16.

5. Claims 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The closest prior art of record, Maehara et al (U.S. Patent 6,164,838) do not teach an optoelectronic subassembly with the specific elements and the specific combinations including a heat sink carrier operatively connected to the flexible circuit and attached to the optoelectronic die.

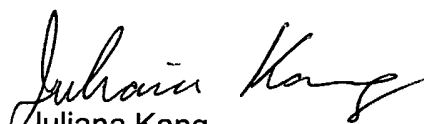
Conclusion

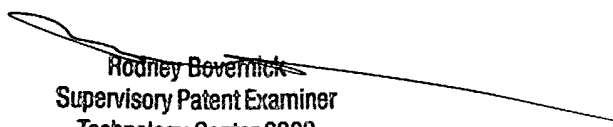
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Noddings et al (U.S. Patent 5,574,814) show an optical transceiver module comprising VCSEL and flex wire.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliana K. Kang whose telephone number is (703) 305-6259. The examiner can normally be reached on Mondays and Thursday 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick can be reached on (703) 308-4819. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-3072.


Juliana Kang
November 26, 2002


Rodney Bovernick
Supervisory Patent Examiner
Technology Center 2800